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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,929	06/22/2001	Mohan Kalkunte	108339-00015	5906
4372	7590	05/05/2005	EXAMINER	
ARENT FOX PLLC 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			DAVIS, CYNTHIA L	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s) U	
	09/885,929	KALKUNTE ET AL.	
	Examiner	Art Unit	
	Cynthia L Davis	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/25/05
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed on 2/22/2005 have been fully considered but they are not persuasive.

1. Regarding claims 1-4 and 6-7, applicant's argument that Kung does not teach "an external address resolution interface connection to at least one of said plurality of input ports, said external address resolution interface externally transmitting said data packets for processing, and receiving data packets after processing," "transmitting said data packet from said output port over an interface to an external module for address resolution," and "transmitting said data packet from said interface to a memory management unit," the system of Kung does, as the applicant admits, route to a number of servers that perform various functions, including DNS, or address resolution. The servers are external to the router. The servers are also connected to the input ports via the router. An interface must be present, because without one, the packets could not be transmitted between the router and the servers. The interface between the router and the DNS server is an external address resolution interface.

2. Regarding claim 5, applicant's arguments regarding claim 1 are treated above. As noted above, the external address resolution interface is taught in Kung. Applicant merely argues the lack of an interface. Applicant does not argue that Godfrey does not teach an external address resolution chip, which would be obvious to connect to the interface of Kung.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4 and 6-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Kung.

Regarding claim 1, a network switch comprising a plurality of input ports that receive data packets is disclosed in Kung, figure 2, element 210 (a gigabit switch would have a plurality of input ports). An external address resolution interface connected to at least one of said plurality of input ports, said external address resolution interface externally transmitting said data packets for processing, is disclosed in Kung, figure 2, element 214. A memory management unit is disclosed in Kung, figure 2, element 216 and column 8, lines 14-26. A plurality of output ports connected to the memory management unit is disclosed in figure 2, element 210 (a gigabit switch would have a plurality of output ports).

Regarding claim 2, the external address resolution interface being a high-speed external interface is disclosed in Kung, figure 2, elements 210 and 214 (in order for the

switch to operate at gigabit speeds, the link between the switch and the DNS server must be high-speed).

Regarding claim 3, the external address resolution interface being an address resolution gigabit interface is disclosed in Kung, figure 2, elements 210 and 214 (in order for the switch to operate at gigabit speeds, the link between the switch and the DNS server must be at gigabit speed as well).

Regarding claim 4, an external ARL being connected to said external interface is disclosed in Kung, figure 2, element 214.

Regarding claim 6, receiving a data packet in an input port is disclosed in Kung, figure 2, element 210 (a gigabit switch would receive data packets at input ports). Transmitting the packet from said input port over an interface to an external module for resolving the address of the packet, processing the packet in the external module, and transmitting the packet from the external module to the interface, and receiving the packet from the external module is disclosed in figure 2, element 214 (packets are sent over the interface to the external DNS for processing, then are returned once they are processed). Transmitting said data packet from said interface to a memory management unit is disclosed in figure 2, element 216, and column 8, lines 14-26 (the system manager does memory buffering for this switch). Transmitting said data packet from said memory management unit to an output port is disclosed in figure 2, element 210 (a gigabit switch would transmit packets to output ports).

Regarding claim 7, a network switch comprising an input port receiving means for receiving a data packet in an input port is disclosed in Kung, figure 2, element 210 (a

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gigabit switch would receive data packets at input ports). An input port transmitting means for transmitting said data packet from said input port over an interface to an external module for address resolution, a processing means for processing said packet in said external module, an external module transmitting means for transmitting said packet from said external module to said interface, and an interface receiving means for receiving said data packet in said interface from said external module are disclosed in figure 2, element 214 (packets are sent over the interface to the external DNS for processing, then are returned once they are processed). An interface transmitting means for transmitting said data packet from said interface to a memory management unit is disclosed in figure 2, element 216, and column 8, lines 14-26 (the system manager does memory buffering for this switch). A memory unit transmitting means for transmitting said data packet from said memory management unit to an output port is disclosed in figure 2, element 210 (a gigabit switch would transmit packets to output ports).

Regarding claims 8-10, an internal address resolution switch to perform an address resolution function in absence of said external address resolution interface is disclosed in Kung, column 7, lines 1-3 (the DNS server may be either external or internal to the switch).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the

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subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kung in view of Godfrey. An external address resolution chip connected to the external interface is missing from Kung. However, Kung does disclose in figure 2, element 214, an external DNS. Also, Godfrey discloses in column 2, lines 16-18, a DNS embodied on a chip. It would have been obvious to one skilled in the art at the time of the invention to use an external DNS chip for address resolution. The motivation would be to use a small, chip-sized component.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia L Davis whose telephone number is (571) 272-3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CLD
4/28/2005

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4/28/05



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